IN THE CLAIMS

The following is a listing of the claims in accordance with 37 C.F.R. §1.121.

1. (currently amended) A CT imaging system, comprising:

an X-ray source comprising two or more emission points that are offset from one another such that the emission points sample substantially different portions of a field of view;

a rotatable detector array comprising a plurality of detector elements, wherein each detector element [[may]] is configured to generate one or more signals in response to ~~the streams of~~ radiation emitted by the two or more emission points; and

a system controller configured to control the two or more emission points such that the flux of the radiation emitted by the respective emission points is determined based on at least one of the respective view relative to the field of view or a path length through a patient at the respective view.

2-6. (canceled)

7. (currently amended) The CT imaging system as recited in claim 1, wherein the X-ray source comprises duplicate emission points along [[the]] a longitudinal axis.

8. (currently amended) The CT imaging system as recited in claim 1, wherein the X-ray source comprises offset emission points along [[the]] a longitudinal axis.

9. (previously presented) The CT imaging system as recited in claim 1, wherein the two or more emission points are rotated about the field of view such that each emission point, when activated, emits a respective stream of radiation from a respective view.

10. (previously presented) The CT imaging system as recited in claim 9, wherein the two or more emission points are rotated by mechanically rotating the emission points about the field of view.

11-12. (canceled)

13. (previously presented) The CT imaging system as recited in claim 9, wherein a first subset of the two or more emission points are activated at a first set of views and wherein a second subset of the two or more emission points are activated at a subset of the first set of views.

14. (previously presented) The CT imaging system as recited in claim 13, wherein the first set of views comprises every view and wherein the subset comprises every other view.

15. (canceled)

16. (previously presented) The CT imaging system as recited in claim 1, further comprising:

a computer system configured to receive the one or more signals and to process the one or more signals to generate one or more images; and

an operator workstation configured to display the one or more images.

17. (currently amended) A method for CT imaging, the method comprising the acts of:

emitting respective streams of radiation from each of two or more X-ray emitters that are offset from one another such that the X-ray emitters sample substantially different portions of a field of view, wherein the flux of the radiation emitted by the respective emission points is determined based on at least one of the respective view relative to the field of view or a path length through a patient at the respective view; and

acquiring a plurality of signals from a rotatable detector, wherein the plurality of signals are generated in response to the respective streams of radiation.

18. (previously presented) The method as recited in claim 17, wherein emitting the respective streams of radiation comprises activating a first set of emission points at a first set of views and activating a second set of emission points at a second set of views.

19. (previously presented) The method as recited in claim 18, wherein the second set of views comprises a subset of the first set of views.

20. (canceled)

21. (previously presented) The method as recited in claim 17, comprising mechanically rotating the two or more X-ray emitters about the field of view.

22. (canceled).

23. (currently amended) A computer program, provided on one or more computer readable media, for imaging a field of view, comprising:

a routine for emitting respective streams of radiation from each of two or more X-ray emitters that are offset from one another such that the X-ray emitters sample substantially different portions of a field of view, wherein the flux of the radiation emitted by the respective emission points is determined based on at least one of the respective view relative to the field of view or a path length through a patient at the respective view;

a routine for acquiring a plurality of signals from a rotatable detector, wherein the plurality of signals are generated in response to the respective streams of radiation.

24. (previously presented) The computer program as recited in claim 23, further comprising:

a routine for acquiring a plurality of signals from a detector, wherein the plurality of signals are generated in response to the respective streams of radiation; and

a routine for processing the plurality of signals to generate one or more images.

25. (previously presented) The computer program as recited in claim 23, wherein the routine for emitting the respective streams of radiation activates a first set of emission points at a first set of views and activates a second set of emission points at a second set of views.

26. (previously presented) The computer program as recited in claim 25, wherein the second set of views comprises a subset of the first set of views.

27. (canceled)

28. (canceled)

29. (currently amended) A CT imaging system, comprising:

an X-ray source comprising two or more ~~azimuthally~~ offset emission points, ~~wherein each emission point, when activated, emits a stream of radiation that circumscribes a different radial region of a field of view than the other emission points~~;

an X-ray controller configured to differentially activate the two or more emission points such that at least one of the number of activations, the durations of activation, or the energy or the flux of the emitted radiation differ based on the respective view or based on a path length through a patient at the respective view;

a rotatable detector array comprising a plurality of detector elements, wherein each detector element [[may]] is configured to generate one or more signals in response to the ~~respective streams of~~ radiation emitted by the two or more emission points.

30. (currently amended) A CT imaging system, comprising:

an X-ray source comprising two or more ~~discrete~~ emission points, wherein X-rays emitted by each emission point pass through substantially non-overlapping regions of a field of view;

a rotatable detector array comprising a plurality of detector elements, wherein each detector element [[may]] is configured to generate one or more signals in response to the emitted X-rays; and

a system controller configured to ~~control the two or more emission points~~ differentially operate the two or more emission points to maintain a substantially uniform flux profile at the detector array.

31. (previously presented) The CT imaging system as recited in claim 1, wherein at least one emission point emits a respective stream of radiation that passes through the central region of the field of view and at least one emission point emits a respective stream of radiation that does not passes through the central region of the field of view.

32. (previously presented) The CT imaging system as recited in claim 1, wherein at least one emission point is activated less frequently than at least one other emission point.

33. (previously presented) The CT imaging system as recited in claim 1, wherein at least one emission point is activated for less time than at least one other emission point.

34. (previously presented) The CT imaging system as recited in claim 1, wherein at least one emission point is operated at a lower energy than at least one other emission point.

35. (previously presented) The CT imaging system as recited in claim 1, wherein at least one emission point is operated at a lower flux than at least one other emission point.

36. (canceled)

37. (canceled)

38. (previously presented) The CT imaging system as recited in claim 1, wherein the two or more emission points are radially offset from one another.

39. (previously presented) The CT imaging system as recited in claim 1, wherein the different portions of the field of view are different radial portions of the field of view.